

In the Claims:

Please amend claims 9 and 14 as follows:

Claim 9, line 1, change "8" to --7--.

Claim 14, line 1, change "13" to --12--.

Please add new claims 31-42 as follows:

--31. A code-division-multiple-access (CDMA) wireless base station, comprising:
a CDMA transmitter;

a CDMA receiver; and

a controller coupled to the CDMA receiver for responding to signals received via the CDMA receiver and coupled for controlling the CDMA transmitter, such that in operation the CDMA base station is for performing the following steps:

transmitting a frame-timing signal over a wireless synchronization channel modulated with a common chip-sequence signal;

receiving over a wireless packet channel from a remote station an access burst comprising a sequence of coded preamble signals at sequentially increasing discrete power levels;

detecting a first one of the coded preamble signals of the sequence that is received at an adequate power level;

upon detection of the first coded preamble signal at the adequate power level, transmitting an acknowledgement signal; and

receiving data over the wireless packet channel from the remote station.

32. A code-division-multiple-access (CDMA) wireless handset, comprising:

a CDMA transmitter;

a CDMA receiver; and

a controller coupled to the CDMA receiver for responding to signals received via the CDMA receiver and coupled for controlling the CDMA transmitter, such that in operation the CDMA handset is for performing the following steps:

receiving a frame-timing signal modulated with a common chip-sequence signal from a base station over a synchronization channel;

transmitting an access burst comprising a sequence of coded preamble signals at sequentially increasing discrete power levels to the base station, over a random access packet channel;

receiving an acknowledgement signal from the base station; and

transmitting data over the random access packet channel to the base station.

33. A base-band processor, for use in a code-division-multiple-access (CDMA) wireless base station having a modulator and a demodulator, the base-band processor comprising:

a preamble processor, coupled to the demodulator, for detecting a preamble in a received spread-spectrum signal;

a data processor, coupled to the demodulator, for detecting and processing any data contained in the received spread-spectrum signal;

an encoder, for encoding data;

an interleaver, coupled to the encoder, for interleaving encoded data;

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Cont. a packet formatter, coupled to the interleaver, for formatting the interleaved data into a packet; and

a controller coupled to the preamble processor and coupled for controlling the modulator, the data processor and the packet formatter, such that in operation the base-band processor is for performing the following steps:

detecting a first one of a sequence of coded preamble signals embedded in a first spread-spectrum signal received at an adequate power level;

upon detection of the first coded preamble signal at the adequate power level, generating a packet comprising an acknowledgement signal, and outputting the packet comprising the acknowledgement signal to the modulator; and

processing a packet, comprising data, from a second received spread-spectrum signal.

14
34. The base-band processor as set forth in claim 33, wherein:

the base-band processor further comprises the demodulator of the CDMA wireless base station; and

the demodulator is for demodulating a received spread-spectrum signal.

¹⁵
~~35~~. The base-band processor as set forth in claim ¹⁴~~34~~, wherein the demodulator comprises:

an analog-to-digital converter for converting received spread-spectrum signals from an antenna to a digital signal; and

means responsive to the digital signal from the analog-to-digital converter for despreading the received spread-spectrum signals and detecting the transmitted data.

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~~36~~. The base-band processor as set forth in claim ¹³~~33~~, further comprising a digital to analog converter responsive to digital signals from the packet formatter.

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Cont.
¹⁷
~~37~~. The base-band processor as set forth in claim ¹³~~33~~, further comprising a variable gain device, coupled to the packet formatter, for adjusting the level of packets from the packet formatter before application thereof to the modulator.

¹⁸
~~38~~. A base-band processor, for use in a code-division-multiple-access (CDMA) wireless handset having a spread-spectrum modulator and a spread-spectrum demodulator, the base-band processor, comprising:

an acknowledgment detector, coupled to the demodulator, for detecting an acknowledgment in a received spread-spectrum signal;

an encoder, for encoding data;

an interleaver, coupled to the encoder, for interleaving encoded data;

a preamble generator for generating a preamble;

a multiplexer, coupled to the interleaver and to the preamble generator, for multiplexing the interleaved data and the preamble;

a packet formatter, coupled to the multiplexer, for formatting the multiplexed data and preamble into one or more packets; and

a controller coupled to the acknowledgment detector and coupled for controlling the modulator, the preamble generator, the multiplexer and the packet formatter, such that in operation the base-band processor is for performing the following steps:

generating and outputting to the modulator a plurality of packets comprising a sequence of coded preamble signals at sequentially increasing discrete power levels;

detecting an acknowledgement in a received spread-spectrum signal;

and

upon detection of the acknowledgement, outputting a packet comprising data to the modulator for transmission over a random access wireless channel.

¹⁹
~~39~~. The base-band processor as set forth in claim ¹⁸~~38~~, wherein:

the base-band processor further comprises the demodulator of the CDMA wireless handset; and

the demodulator is for demodulating a received spread-spectrum signal.

²¹
²⁰ ^{Sub}
The base-band processor as set forth in claim 39, wherein the demodulator comprises:

an analog-to-digital converter for converting received spread-spectrum signals from an antenna to a digital signal; and

means responsive to the digital signal from the analog-to-digital converter for despreading the received and spread-spectrum signals detecting the transmitted data.

²¹
~~41~~. The base-band processor as set forth in claim ¹⁸~~38~~, further comprising a digital to analog converter responsive to digital signals from the packet formatter.

²²
~~42~~. The base-band processor as set forth in claim ¹⁸~~38~~, further comprising a variable gain device, coupled to the packet formatter, for adjusting the level of packets from the packet formatter before application thereof to the modulator.--